

Appln No. 10/045,663
Amdt date May 17, 2004
Reply to Office action of February 25, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-6. (Cancelled)

7. (Previously Presented) An electron gun for a cathode ray tube comprising:

a cathode for emitting an electron beam;

a plurality of grid electrodes aligned sequentially from the cathode, one of the grid electrodes including a plurality of focusing electrodes that are mounted with at least one predetermined gap therebetween;

a support for fixing the grid electrodes in their aligned arrangement; and

a shield electrode mounted covering the at least one gap of the focusing electrodes and extending a predetermined distance over the focusing electrodes, wherein a plurality of openings are formed at predetermined distances through the shield electrode, and the shield electrode is cylindrical and is mounted on the focusing electrodes covering the at least one gap and wherein the shield electrode satisfies the following condition:

$$0.25d \text{ mm}^2 < c \text{ mm}^2 < 0.75d \text{ mm}^2$$

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where (c) is a total area of the openings and (d) is an area of the shield electrode minus the area occupied by the openings.

8. (Previously Presented) An electron gun for a cathode ray tube comprising:

a cathode for emitting an electron beam;

a plurality of grid electrodes aligned sequentially from the cathode, one of the grid electrodes including a plurality of focusing electrodes that are mounted with at least one predetermined gap therebetween;

a support for fixing the grid electrodes in their aligned arrangement; and

a shield electrode mounted covering the at least one gap of the focusing electrodes and extending a predetermined distance over the focusing electrodes, wherein a plurality of openings are formed at predetermined distances through the shield electrode, and the shield electrode is cylindrical and is mounted on the focusing electrodes covering the at least one gap and wherein a thickness (t) of the shield electrode satisfies the following condition:

$$0.06\text{mm} < t < 0.4\text{mm}$$

9. (Currently Amended) The electron gun of ~~claim 2 claims 7 or 8~~ wherein distances g2 between centers of the openings satisfy the following condition:

$$0.3\text{mm} < g2 < 0.75\text{mm}$$

10. (Previously Presented) An electron gun for a cathode ray tube comprising:

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a cathode for emitting an electron beam;

a plurality of grid electrodes aligned sequentially from the cathode, one of the grid electrodes including a plurality of focusing electrodes that are mounted with at least one predetermined gap therebetween;

a support for fixing the grid electrodes in their aligned arrangement; and

a shield electrode mounted covering the at least one gap of the focusing electrodes and extending a predetermined distance over the focusing electrodes, wherein the plurality of focusing electrodes comprise first and second separated focusing electrodes that satisfy the following condition:

$$b \text{ mm} > 0.5a \text{ mm}$$

where (a) is an inner diameter of the first separated focusing electrode and (b) is a length of the first separated focusing electrode in an axial direction of the CRT and wherein a distance between openings formed in the shield electrode corresponding to where the shield electrode covers the first separated focusing electrode is smaller than a distance between openings formed in the shield electrode corresponding to where the shield electrode covers the second separated focusing electrode.

11. (Currently Amended) The electron gun of ~~claim 1~~ claims 7, 8, or 10 wherein the shield electrode is made of a non-magnetic material.

12. (Currently Amended) The electron gun of ~~claim 2~~ claims 7, 8, or 10 wherein the openings are circular.

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13. (Currently Amended) The electron gun of ~~claim 2~~ claims 7, 8, or 10 wherein the openings are multilateral.

14. (Currently Amended) The electron gun of ~~claim 1~~ claims 7, 8, or 10 wherein the shield electrode directly contacts the focusing electrodes.

15.-16. (Cancelled)

17. (Currently Amended) The electron gun of ~~claim 1~~ claims 7, 8, or 10 wherein the cathode emits a single electron beam.

18.-21. (Cancelled)